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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,838	02/27/2002	Bradley F. Bowden	SP01-329	1759

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CORNING INCORPORATED  
SP-TI-3-1  
CORNING, NY 14831

EXAMINER

FIORILLA, CHRISTOPHER A

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/085,838

Applicant(s)

BOWDEN ET AL.

Examiner

Christopher A. Fiorilla

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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1. Claims 1-30 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a process which utilizes silica soot particles doped with titania, does not reasonably provide enablement for the process as generically claimed. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-7, 14-25, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 62-27341 in view of Hihara et al. (5,244,485).

JP 62-27341 teaches a method of making an optical blank. The process disclosed by JP 62-27341 includes the steps of: providing glass particles, pressing the glass particles to obtain a green body; and consolidating the green body to obtain a product suitable for optical applications.

JP 62-27341 does not disclose the specific type of glass particles nor does it disclose spray drying to form agglomerates.

Hihara et al. discloses a method for forming an optical preform comprising producing silica particles i.e. soot, by flame hydrolysis (Col. 4, line 65 ff), spray drying to form agglomerates or granules (examples 2, 5 and 7), pressing to form a body and consolidating by heat. With regard to limitations of the dependent claims, Hihara et al also sets forth the following additional disclosure.

Purification with chlorine gas at elevated temperature is shown at Col. 6, lines 54-67). With regard to claim 5, it would be well within the purview of one of ordinary skill in the art to determine purification temperatures lower than 1250 °C such as 1100 °C dependent on the level of impurities desired to be removed. Spray dryers use nozzles for formation of droplets. It does not appear that Hihara et al use a dispersant but binders are set forth at (Col. 4, lines 9-18), e.g. polyethylene glycol. The agglomerates of Hihara et al can have particles sizes falling within the claimed range (See examples and Col. 17, line 17). It would have been within the purview of one of ordinary skill to have determined the appropriate bulk density of the agglomerates needed to provide an efficiently molded article as recited in claim 18. Hihara et al show pressing forces falling within the claimed range of claim 19 while the formation of pellets would be clearly suggested to one of ordinary skill in the art because formation of pellets for subsequent molding procedures are well known in the molding arts. Consolidation or desired sintering temperatures in view of the teachings of Hihara et al would have been obvious to one of ordinary skill in the art (See Col. 6, line 67 ff). A helium sintering atmosphere is shown by Hihara et al.

It would have been obvious to one skilled in the art at the time of the invention to utilize the specific process parameters of Hihara et al. in the process of JP 62-27341 in view of the generic disclosure therein.

5. Claims 8-13,26 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 62-27341 in view of Hihara et al. (5,244,485) as applied to claims 1-7,14-25,28 and 30 above, and further in view of Biegler et al. (3,383,172), Bergna et al. (3,301,635) or Kreutzer et al. (4,842,628).

Biegler et al disclose that silica produced by spray drying is available to the prior art in the form of spheres or hollow spheres (Col. 2, line 28 and Abstract). Similarly Bergna et al disclose that spray dried silica can be hollow when the particles are larger than 10 microns and further shows the use of ammonia to stabilize the slurries (See Col. 6, line 41 ff and Col. 9, line 45). The spray dried materials of Bergna et al can be molded (See Title). Thus it would have been obvious to use solid or hollow silica spheres in the molding process of the primary reference dependent on the desired density of the molded product and additionally obvious to employ ammonia to stabilize the slurry. Kreutzer et al show the alternative heat treatment of silica performs in a helium atmosphere or a vacuum (abstract). It would have been obvious to alternatively use a vacuum in the process of the primary reference in order to produce the art expected result of heat treating a silica perform.

6. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 62-27341 in view of Hihara et al. (5,244,485) as applied to claim 1-7,14-25,28 and 30 above, and further in view of Bernas et al. (2002/0154280).

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Bernas et al. discloses the production of an optical component from a silica/titania powder. It would have been obvious to use this type of material in the process of JP 62-27341 in view of the generic disclosure therein.

7. Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Fiorilla whose telephone number is (571) 272-1187. The examiner can normally be reached on M-F, 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.



Christopher A. Fiorilla  
Primary Examiner  
Art Unit 1731

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